



Essential Questions	EAGLES	Knowledge (Content)	Objectives (Skills)	Assessment	Instructional Strategies	Resources Including Technology	Reflections
Functions (Week 1, 4 Weeks)		<ul style="list-style-type: none"> Coordinate Geometry--- slope, distance formula, midpoint Intercepts Symmetry Graphing Calculator Techniques Equations of Lines Writing Linear Equations Equations of Parallel & Perpendicular Lines 		Quiz on functions Formative: Quiz Test on functions Summative: Written Test Quiz 1.docx Test 1.docx		<u>Precalculus: Enhanced with Graphing Utilities</u> , 5th ed., Sullivan and Sullivan, Prentice Hall, 2009, ISBN: 978-013-601-5789 TI-84+ Graphing Calculator	
Linear and Quadratic Functions (Week 5, 3 Weeks)		<ul style="list-style-type: none"> Linear functions and their properties Quadratic functions and their properties Linear and quadratic models Quadratic Inequalities 		Test on linear and quadratic functions Summative: Written Test Ch 3 Test.docx		<u>Precalculus: Enhanced with Graphing Utilities</u> , 5th ed., Sullivan and Sullivan	
Polynomial and Rational Functions (Week 8, 4 Weeks)		<ul style="list-style-type: none"> Polynomial functions and models/equations Properties of rational functions, e.g. vertical and horizontal asymptotes Graphs of rational functions Polynomial and rational inequalities Zeros of rational functions Remainder and Factor Theorems Rational Root Theorem Synthetic Division is covered in the appendix 	<ul style="list-style-type: none"> Solve equations by graphing, factoring, completing the square, or by using the Quadratic Formula Find the discriminant of $x^2 + 4x + 2 = 0$ and describe the nature of the roots of the equation. Solve the equation Identify the number of possible solutions from a given polynomial. Determine the binomial factors of a given polynomial. To model and make predictions from actual data. 	Chapter 4 Quiz Formative: Quiz Quiz on polynomial and rational functions Chapter 4 Test Summative: Written Test Test on polynomial and rational functions Quiz on polynomial and rational functions Test on polynomial and rational functions		<u>Precalculus: Enhanced with Graphing Utilities</u> , 5th ed., Sullivan and Sullivan, Prentice Hall, 2009, ISBN: 978-013-601-5789 TI-84+ Graphing Calculator	
Exponents and Logarithms (Week 12, 4 Weeks)		<ul style="list-style-type: none"> Composite functions Inverse functions Exponential functions Logarithmic functions & log 		Chapter 5 Quiz Formative: Quiz Quiz on exponential and logarithmic		<u>Precalculus: Enhanced with Graphing Utilities</u> , 5th ed., Sullivan and Sullivan, Prentice Hall,	

- properties
- Common logarithms
- The number e and natural logarithms
- Log and exponential equations
- Log and exponential models w/ application problems

functions

Chapter 5 Test Summative: Written Test
Test on exponential and logarithmic functions

 [Ch 5 Quiz.docx](#)



 [Ch 5 Test.docx](#)

2009, ISBN: 978-013-601-5789

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Trigonometric Functions

(Week 18, 3

Weeks)  

- Trigonometry of the unit circle
- Graphing sine and cosine functions
- Other trig functions (tan, cot, sec, csc)
- The A, B C, and D of sine & cosine (amplitude, period, phase shift, vertical shift)
- Sinusoidal curve fitting

Chapter 6 Quiz Formative: Quiz
Quiz on trigonometric functions

Chapter 6 Test Summative: Written Test
Test on trigonometric functions

 [Ch 6 Quiz.docx](#)



 [Ch 6 Test.docx](#)

Precalculus: Enhanced with Graphing Utilities, 5th ed., Sullivan and Sullivan, Prentice Hall, 2009, ISBN: 978-013-601-5789

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Analytic Trigonometry and Applications

(Week 21, 7

Weeks)  


- Inverse trig functions
- Trig Identities (Note: Alg2/Trig will introduce trig identities and verifying identities in March 2010)
- Sum and difference Formulas
- Double and half-angle formulas
- Solving trig equations
- Note: 7.6 and product-to-sum and sum-to-product formulas are Extensions

Trig graph quiz Formative: Quiz
Quiz on trig graphs (includes sin/cos, reciprocal trig fns, and inverse trig fns)

Chapter 7 Test Summative: Written Test
Test on analytic trigonometry

Chapter 8 Quiz Formative: Quiz
Quiz on geometric trigonometry

Chapter 8 Test Summative: Written Test

 [Trig Graph Quiz.docx](#)

 [Ch 8 Test.docx](#)

 [Ch 8 Quiz.docx](#)



 [Ch 7 Test.docx](#)

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Matrices and Systems of Equations

(Week 28, 4

Weeks)  



- Substitution and elimination
- Matrix methods for systems of equations
- Determinants
- Matrix algebra
- Partial fractions
- Non-linear systems of equations
- Systems of

Chapter 11 Quiz Formative: Quiz
Quiz on matrices and systems of equations

Chapter 11 Test Summative: Written Test

- inequalities
- Linear programming

Test on matrices, systems of equations and inequalities

 [Ch 11 Quiz.docx](#)
 [Ch 11 Test.docx](#)

Counting and Probability


(Week 32, 2

Weeks)  

- Permutations and Combinations
- Permutations with Repetitions
- Probabilities of Compound Events

Ch 13 Quiz Formative: Quiz

Quiz on combinatorics and probability

 [Ch 13 Quiz.docx](#)

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Note: Need to add benchmarks (under Standard V) for this unit.

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Sequences and Series



(Week 34, 2

Weeks)  

Test on Chapters 12, 13 Summative: Written Test

Review and exam

(Week 36, 2

Weeks)  



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